TRANSMISSION OK

TX/RX NO

1040

CONNECTION TEL

912123183400

SUBADDRESS CONNECTION ID

ST. TIME

09/15 20:26

USAGE T

05'55

PGS.

9 OK

RESULT

Crystal Mall 1, 7th Floor 1911 South Clark Street Arlington, VA 22202 Tel.: 703-308-8362 Fax: 703-746-5195

USPTO



• Comments:					
□ Urgent		☐ For Review	☐ Please Comment	☐ Please Reply	☐ Please Recycle
Re:	09/270,437		CC:		
Phone:			Date:	9/15/03	
Fax:	212	2-318-3400	Pages	9, inclusive	
То:	Nor	man Hanson	From:	Examiner Canella	

Copies of the attachment to 09/270,437. I apologize for the omission.



Blast 2 Sequences results

PubMed

Entrez

BLAST

OMIM

Taxonomy

Structure

c-myc-CRD

BLAST 2 SEQUENCES RESULTS VERSION TBLASTN 2.2.6 [Apr-09-2003]

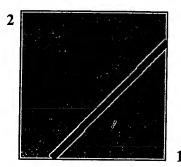
SEQ ID NO:5

Matrix BLOSUM62 ▼ gap open: 11 gap extension: 1

x_dropoff: 50 expect: 10.0 wordsize: 3 Filter Align

Sequence 1 lcl|seq_1 Length 577 (1..577)

Sequence 2 lcl|seq_2 Length 1708 (1 .. 1708)



NOTE: The statistics (bitscore and expect value) is calculated based on the size of nr database

Score = 854 bits (2206), Expect = 0.0
Identities = 438/445 (98%), Positives = 439/445 (98%)
Frame = +2

Query: 133 RQAIMKLNGHQLENHALKVSYIPDEQITQGPENGRRGGFGSRGQPRQGSPVAAGAPAKQQ 192 R AIMKLNGHQLENHALKVSYIPDEQI QGPENGRRGGFGSRGQPRQGSPVAAGAPAKQQ Sbjct: 32 RGAIMKLNGHQLENHALKVSYIPDEQIAQGPENGRRGGFGSRGQPRQGSPVAAGAPAKQQ 211 Query: 193 PVDIPLRLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAGAAEKAISVHSTPEG 252 VDIPLRLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAGAAEKAISVHSTPEG Sbjct: 212 QVDIPLRLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAGAAEKAISVHSTPEG 391 Query: 253 CSSACKMILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRNLKKVEQDTETKITI 312 CSSACKMILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRNLKKVEQDTETKITI Sbjct: 392 CSSACKMILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRNLKKVEQDTETKITI 571 Query: 313 SSLQDLTLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAMSLQSHLIPGLNLAA 372 SSLQDLTLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAMS SHLIPGLNLAA Sbjct: 572 SSLQDLTLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAMS--SHLIPGLNLAA 745 Query: 373 VGLFPASSSAVPPPPSSVTGAAPYSSFMQAPEQEMVQVFIPAQAVGAIIGKKGQHIKQLS 432 VGLFPASSSAVPPPPSSVTGAAPYSSFMQAPEQEMVQVF1PAQAVGAIIGKKGQHIKQLS Sbjct: 746 VGLFPASSSAVPPPPSSVTGAAPYSSFMQAPEQEMVQVFIPAQAVGAIIGKKGQHIKQLS 925 Query: 433 RFASASIKIAPPETPDSKVRMVVITGPPEAQFKAQGRIYGKLKEENFFGPKEEVKLETHI 492 RFASASIKIAPPETPDSKVRMV+ITGPPEAQFKAQGRIYGKLKEENFFGPKEEVKLETHI Sbjct: 926 RFASASIKIAPPETPDSKVRMVIITGPPEAQFKAQGRIYGKLKEENFFGPKEEVKLETHI 1105 Query: 493 RVPASAAGRVIGKGGKTVNELQNLTAAEVVVPRDQTPDENDQVIVKIIGHFYASQMAQRK 552 RVPASAAGRVIGKGGKTVNELQNLTAAEVVVPRDQTPDENDQVIVKIIGHFYASQMAQRK

Sbjct: 1106RVPASAAGRVIGKGGKTVNELQNLTAAEVVVPRDQTPDENDQVIVKIIGHFYASQMAQRK 1285 Query: 553 IRDILAQVKQQHQKGQSNLAQARRK 577 IRDILAQVKQQHQKGQSN AQARRK Sbjct: 1286IRDILAQVKQQHQKGQSNQAQARRK 1360 CPU time: 0.04 total secs. 0.03 user secs. 0.01 sys. secs Lambda K Н 0.131 0.314 0.365 Gapped Lambda K 0.0410 0.140 0.267 Matrix: BLOSUM62 Gap Penalties: Existence: 11, Extension: 1 Number of Hits to DB: 11,732 Number of Sequences: 0 Number of extensions: 7631 Number of successful extensions: 15 Number of sequences better than 10.0: 2 Number of HSP's better than 10.0 without gapping: 2 Number of HSP's successfully gapped in prelim test: 0 Number of HSP's that attempted gapping in prelim test: 0 Number of HSP's gapped (non-prelim): 2 length of query: 577 length of database: 2,972,685,411 effective HSP length: 146 effective length of query: 431 effective length of database: 2,972,685,265 effective search space: 1281227349215 effective search space used: 1281227349215 frameshift window, decay const: 50, 0.1

T: 9
A: 40
X1: 16 (7.2 bits)
X2: 129 (49.7 bits)
X3: 129 (49.7 bits)
S1: 42 (21.9 bits)
S2: 84 (37.0 bits)



Blast 2 Sequences results

PubMed

Entrez BLAST

OMIM

Taxonomy

Structure

c-myc-CRD

BLAST 2 SEQUENCES RESULTS VERSION TBLASTN 2.2.6 [Apr-09-2003]

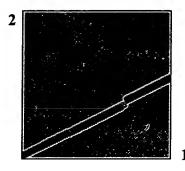
SEQ ID NO:6

Matrix BLOSUM62 ▼ gap open: 11 gap extension: 1

x_dropoff: 50 expect: 10.0 wordsize: 3 Filter Align

Sequence 1 lcl|seq_1 Length 577 (1..577)

Sequence 2 lcl|seq_2 **Length** 3412 (1 .. 3412)



NOTE: The statistics (bitscore and expect value) is calculated based on the size of nr database

Score = 775 bits (2000), Expect = 0.0 Identities = 394/603 (65%), Positives = 476/603 (78%), Gaps = 26/603 (4%) Frame = +1

Query: 1 MNKLYIGNLNESVTPADLEKVFAEHKISYSGQFLVKSGYAFVDCPDEHWAMKAIETFSGK 60 MNKLYIGNL+ +VT DL ++F + K+ +GQ L+KSGYAFVD PD++WA++AIET SGK Sbjct: 73 MNKLYIGNLSPAVTADDLRQLFGDRKLPLAGQVLLKSGYAFVDYPDQNWAIRAIETLSGK 252 Query: 61 VELQGKRLEMEHSVPKKQRSRKIQIRNIPPQLRWEVLDSLLAQYGTVENCEQVNTESETA 120

VEL GK +E+++SV KK RSRKIQIRNIPP L+WEVLD LLAQYGTVEN EQVNT++ETA

Sbjct: 253 VELHGKIMEVDYSVSKKLRSRKIQIRNIPPHLQWEVLDGLLAQYGTVENVEQVNTDTETA 432

Query: 121 VVNVTYSNREQTRQAIMKLNGHQLENHALKVSYIPDEQITQG--PENGRRGGFGSRGQPR 178 VVNVTY+ RE+ + A+ KL+GHQ EN++ K+SYIPDE+++ P+ +RG SR Q

Sbjct: 433 VVNVTYATREEAKIAMEKLSGHQFENYSFKISYIPDEEVSSPSPPQRAQRGDHSSREQGH 612

Query: 179 QGSPVAAGAPAKQQPVDIPLRLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAG 238

A G ++ + +D PLR+LVPTQ+VGAIIGKEG TI+NITKQTQS++D+HRKEN+G Sbjct: 613 ----APGGTSQARQIDFPLRILVPTQFVGAIIGKEGLTIKNITKQTQSRVDIHRKENSG 777

Query: 239 AAEKAISVHSTPEGCSSACKMILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRN 298 AAEK +++H+TPEG S AC+MILEIM KEA +TK A+E+PLKILAHN VGRLIGKEGRN

Sbjct: 778 AAEKPVTIHATPEGTSEACRMILEIMQKEADETKLAEEIPLKILAHNGLVGRLIGKEGRN 957

Query: 299 LKKVEQDTETKITISSLQDLTLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAM 358

LKK+E +T TKITISSLQDL++YNPERTITVKG +E C AE EIMKK+REA+END+ A+
Sbjct: 958 LKKIEHETGTKITISSLQDLSIYNPERTITVKGTVEACASAEIEIMKKLREAFENDMLAV 1137

Query: 359 SLQSHLIPGLNLAAVGLFPASSSAVPPP--PSSVTGAAPYSSFM------ 400 + Q++LIPGLNL+A+G+F S + PP P AAPY F

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http://www.ncbi.nlm.nih.gov/blast/bl2seq/wblast2.c
```

```
Sbjct: 1138NQQANLIPGLNLSALGIFSTGLSVLSPPAGPRGAPPAAPYHPFTTHSGYFSSLYPHHQFG 1317
Query: 401 -----QAPEQEMVQVFIPAQAVGAIIGKKGQHIKQLSRFASASIKIAPPETPDSKVRMV 454
                  PEQE+V +FIP QAVGAIIGKKG HIKQL+RFA ASIKIAP E PD RMV
Sbjct: 1318PFPHHHSYPEQEIVNLFIPTQAVGAIIGKKGAHIKQLARFAGASIKIAPAEGPDVSERMV 1497
Query: 455 VITGPPEAQFKAQGRIYGKLKEENFFGPKEEVKLETHIRVPASAAGRVIGKGGKTVNELQ 514
           +ITGPPEAOFKAQGRI+GKLKEENFF PKEEVKLE HIRVP+S AGRVIGKGGKTVNELQ
Sbjct: 1498IITGPPEAQFKAQGRIFGKLKEENFFNPKEEVKLEAHIRVPSSTAGRVIGKGGKTVNELQ 1677
Query: 515 NLTAAEVVVPRDQTPDENDQVIVKIIGHFYASQMAQRKIRDILAQVKQQHQKGQSNLAQA 574
          NLT+AEV+VPRDQTPDEN++VIV+IIGHF+ASQ AQRKIR+I+ QVKQQ QK
Sbjct: 1678NLTSAEVIVPRDQTPDENEEVIVRIIGHFFASQTAQRKIREIVQQVKQQEQKYPQGVASQ 1857
Query: 575 RRK 577
          R K
Sbjct: 1858RSK 1866
                              0.00 sys. secs
                                                          0.07 total secs.
CPU time:
           0.07 user secs.
Lambda
         K
                H
   0.314 0.131
                    0.365
Gapped
Lambda
          K
  0.267 0.0410
                    0.140
Matrix: BLOSUM62
Gap Penalties: Existence: 11, Extension: 1
Number of Hits to DB: 21,798
Number of Sequences: 0
Number of extensions: 14808
Number of successful extensions: 17
Number of sequences better than 10.0: 2
Number of HSP's better than 10.0 without gapping: 3.
Number of HSP's successfully gapped in prelim test: 0
Number of HSP's that attempted gapping in prelim test: 0
Number of HSP's gapped (non-prelim): 3
length of query: 577
length of database: 2,972,685,411
effective HSP length: 146
effective length of query: 431
effective length of database: 2,972,685,265
effective search space: 1281227349215
effective search space used: 1281227349215
frameshift window, decay const: 50, 0.1
T: 9
A: 40
X1: 16 ( 7.2 bits)
X2: 129 (49.7 bits)
X3: 129 (49.7 bits)
S1: 42 (21.9 bits)
S2: 84 (37.0 bits)
```

PubMed Entrez BLAST OMIM Taxonomy Structure c-myc-CRD

BLAST 2 SEQUENCES RESULTS VERSION TBLASTN 2.2.6 [Apr-09-2003]

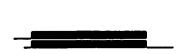
SEQ ID NO:7

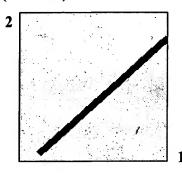
Matrix BLOSUM62 ▼ gap open: 11 gap extension: 1

x_dropoff: 50 expect: 10.0 wordsize: 3 Filter ☐ Align

Sequence 1 lcl|seq_1 Length 577 (1 .. 577)

Sequence 2 lcl|seq 2 Length 1946 (1 .. 1946)





NOTE: The statistics (bitscore and expect value) is calculated based on the size of nr database

Score = 963 bits (2489), Expect = 0.0
Identities = 493/499 (98%), Positives = 494/499 (98%)
Frame = +3

RSRKIQIRNIPPQLRWEVLDSLLAQYGTVENCEQVNTESETAVVNVTYSNREQTRQAIMK 138 RSRKIQIRNIPPQLRWEVLDSLLAQYGTVENCEQVNTESETAVVNVTYSNREQTRQAIMK Sbjct: 108 RSRKIQIRNIPPQLRWEVLDSLLAQYGTVENCEQVNTESETAVVNVTYSNREQTRQAIMK 287 Query: 139 LNGHQLENHALKVSYIPDEQITQGPENGRRGGFGSRGQPRQGSPVAAGAPAKQQPVDIPL 198 LNGHQLENHALKVSYIPDEQI QGPENGRRGGFGSRGQPRQGSPVAAGAPAKQQ VDIPL Sbjct: 288 LNGHQLENHALKVSYIPDEQIAQGPENGRRGGFGSRGQPRQGSPVAAGAPAKQQQVDIPL 467 Query: 199 RLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAGAAEKAISVHSTPEGCSSACK 258 RLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAGAAEKAISVHSTPEGCSSACK Sbjct: 468 RLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAGAAEKAISVHSTPEGCSSACK 647 Query: 259 MILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRNLKKVEQDTETKITISSLQDL 318 MILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRNLKKVEQDTETKITISSLQDL Sbjct: 648 MILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRNLKKVEQDTETKITISSLQDL 827 Query: 319 TLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAMSLOSHLIPGLNLAAVGLFPA 378 TLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAMS SHLIPGLNLAAVGLFPA Sbjct: 828 TLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAMS--SHLIPGLNLAAVGLFPA 1001 Query: 379 SSSAVPPPPSSVTGAAPYSSFMQAPEQEMVQVFIPAQAVGAIIGKKGQHIKQLSRFASAS 438 SSSAVPPPPSSVTGAAPYSSFMQAPEQEMVQVFIPAQAVGAIIGKKGQHIKQLSRFASAS Sbjct: 1002SSSAVPPPPSSVTGAAPYSSFMQAPEQEMVQVFIPAQAVGAIIGKKGQHIKQLSRFASAS 1181 Query: 439 IKIAPPETPDSKVRMVVITGPPEAQFKAQGRIYGKLKEENFFGPKEEVKLETHIRVPASA 498 IKIAPPETPDSKVRMV+ITGPPEAQFKAQGRIYGKLKEENFFGPKEEVKLETHIRVPASA

http://www.ncbi.nlm.nih.gov/blast/bl2seq/wblast2.c

Sbjct: 1182IKIAPPETPDSKVRMVIITGPPEAQFKAQGRIYGKLKEENFFGPKEEVKLETHIRVPASA 1361 Query: 499 AGRVIGKGGKTVNELQNLTAAEVVVPRDQTPDENDQVIVKIIGHFYASQMAQRKIRDILA 558 AGRVIGKGGKTVNELQNLTAAEVVVPRDQTPDENDQVIVKIIGHFYASQMAQRKIRDILA Sbjct: 1362AGRVIGKGGKTVNELQNLTAAEVVVPRDQTPDENDQVIVKIIGHFYASQMAQRKIRDILA 1541 Query: 559 QVKQQHQKGQSNLAQARRK 577 QVKQQHQKGQSN AQARRK Sbjct: 1542QVKQQHQKGQSNQAQARRK 1598 0.05 total secs. 0.01 sys. secs CPU time: 0.04 user secs. Н Lambda K 0.365 0.131 0.314 Gapped Lambda K Н 0.267 0.0410 0.140 Matrix: BLOSUM62 Gap Penalties: Existence: 11, Extension: 1 Number of Hits to DB: 13,365 Number of Sequences: 0 Number of extensions: 8706 Number of successful extensions: 15 Number of sequences better than 10.0: 2 Number of HSP's better than 10.0 without gapping: 2 Number of HSP's successfully gapped in prelim test: 0 Number of HSP's that attempted gapping in prelim test: 0 Number of HSP's gapped (non-prelim): 2 length of query: 577 length of database: 2,972,685,411 effective HSP length: 146 effective length of query: 431 effective length of database: 2,972,685,265 effective search space: 1281227349215 effective search space used: 1281227349215 frameshift window, decay const: 50, 0.1 T: 9 A: 40 X1: 16 (7.2 bits) X2: 129 (49.7 bits) X3: 129 (49.7 bits) S1: 42 (21.9 bits) S2: 84 (37.0 bits)



Blast 2 Sequences results

PubMed

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c-myc-CRD

BLAST 2 SEQUENCES RESULTS VERSION TBLASTN 2.2.6 [Apr-09-2003]

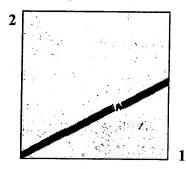
SEQ ID NO:8

Matrix BLOSUM62 ▼ gap open: 11 gap extension: 1

x_dropoff: 50 expect: 10.0 wordsize: 3 Filter ☐ Align

Sequence 1 lcl|seq_1 Length 577 (1...577)

Sequence 2 lcl|seq_2 Length 3283 (1 .. 3283)



NOTE: The statistics (bitscore and expect value) is calculated based on the size of nr database

Score = 742 bits (1916), Expect = 0.0
Identities = 381/579 (65%), Positives = 458/579 (78%), Gaps = 2/579 (0%)
Frame = +1

Query: 1 MNKLYIGNLNESVTPADLEKVFAEHKISYSGQFLVKSGYAFVDCPDEHWAMKAIETFSGK 60
MNKLYIGNL+ +VT DL ++F + K+ +GQ L+KSGYAFVD PD++WA++AIET SGK
Sbjct: 73 MNKLYIGNLSPAVTADDLRQLFGDRKLPLAGQVLLKSGYAFVDYPDQNWAIRAIETLSGK 252

Query: 61 VELQGKRLEMEHSVPKKQRSRKIQIRNIPPQLRWEVLDSLLAQYGTVENCEQVNTESETA 120
VEL GK +E+++SV KK RSRKIQIRNIPP L+WEVLD LLAQYGTVEN EQVNT++ETA
Sbjct: 253 VELHGKIMEVDYSVSKKLRSRKIQIRNIPPHLQWEVLDGLLAQYGTVENVEQVNTDTETA 432

Query: 121 VVNVTYSNREQTRQAIMKLNGHQLENHALKVSYIPDEQITQG--PENGRRGGFGSRGQPR 178
VVNVTY+ RE+ + A+ KL+GHQ EN++ K+SYIPDE+++ P+ +RG SR Q
Sbjct: 433 VVNVTYATREEAKIAMEKLSGHQFENYSFKISYIPDEEVSSPSPPQRAQRGDHSSREQGH 612

Query: 179 QGSPVAAGAPAKQQPVDIPLRLLVPTQYVGAIIGKEGATIRNITKQTQSKIDVHRKENAG 238 A G ++ + +D PLR+LVPTQ+VGAIIGKEG TI+NITKQTQS++D+HRKEN+G

Sbjct: 613 ----APGGTSQARQIDFPLRILVPTQFVGAIIGKEGLTIKNITKQTQSRVDIHRKENSG 777

Query: 239 AAEKAISVHSTPEGCSSACKMILEIMHKEAKDTKTADEVPLKILAHNNFVGRLIGKEGRN 298 AAEK +++H+TPEG S AC+MILEIM KEA +TK A+E+PLKILAHN VGRLIGKEGRN

Sbjct: 778 AAEKPVTIHATPEGTSEACRMILEIMQKEADETKLAEEIPLKILAHNGLVGRLIGKEGRN 957

Query: 299 LKKVEQDTETKITISSLQDLTLYNPERTITVKGAIENCCRAEQEIMKKVREAYENDVAAM 358 LKK+E +T TKITISSLQDL++YNPERTITVKG +E C AE EIMKK+REA+END+ A+

Sbjct: 958 LKKIEHETGTKITISSLQDLSIYNPERTITVKGTVEACASAEIEIMKKLREAFENDMLAV 1137

Query: 359 SLQSHLIPGLNLAAVGLFPASSSAVPPPPSSVTGAAPYSSFMQAPEQEMVQVFIPAQAVG 418 + S G F SS P P+ PEQE+V +FIP QAVG

```
Sbjct: 1138NTHS------GYF---SSLYPHHQFG----PFPHHHSYPEQEIVNLFIPTQAVG 1260
Query: 419 AIIGKKGQHIKQLSRFASASIKIAPPETPDSKVRMVVITGPPEAQFKAQGRIYGKLKEEN 478
           AIIGKKG HIKQL+RFA ASIKIAP E PD
                                            RMV+ITGPPEAQFKAQGRI+GKLKEEN
Sbjct: 1261AIIGKKGAHIKQLARFAGASIKIAPAEGPDVSERMVIITGPPEAQFKAQGRIFGKLKEEN 1440
Query: 479 FFGPKEEVKLETHIRVPASAAGRVIGKGGKTVNELQNLTAAEVVVPRDQTPDENDQVIVK 538
           FF PKEEVKLE HIRVP+S AGRVIGKGGKTVNELQNLT+AEV+VPRDQTPDEN++VIV+
Sbjct: 1441FFNPKEEVKLEAHIRVPSSTAGRVIGKGGKTVNELQNLTSAEVIVPRDQTPDENEEVIVR 1620
Query: 539 IIGHFYASQMAQRKIRDILAQVKQQHQKGQSNLAQARRK 577
           IIGHF+ASQ AQRKIR+I+ QVKQQ QK
Sbjct: 1621IIGHFFASQTAQRKIREIVQQVKQQEQKYPQGVASQRSK 1737
CPU time:
              0.03 user secs.
                                    0.01 sys. secs
                                                           0.04 total secs.
Lambda
           K
                 Н
           0.131
   0.314
                     0.365
Gapped
Lambda
           K
                 Н
   0.267
           0.0410
                     0.140
Matrix: BLOSUM62
Gap Penalties: Existence: 11, Extension: 1
Number of Hits to DB: 20,909
Number of Sequences: 0
Number of extensions: 14230
Number of successful extensions: 17
Number of sequences better than 10.0: 2
Number of HSP's better than 10.0 without gapping: 3
Number of HSP's successfully gapped in prelim test: 0
Number of HSP's that attempted gapping in prelim test: 0
Number of HSP's gapped (non-prelim): 3
length of query: 577
length of database: 2,972,685,411
effective HSP length: 146
effective length of query: 431
effective length of database: 2,972,685,265
effective search space: 1281227349215
effective search space used: 1281227349215
frameshift window, decay const: 50, 0.1
T: 9
A: 40
X1: 16 (7.2 bits)
X2: 129 (49.7 bits)
X3: 129 (49.7 bits)
S1: 42 (21.9 bits)
S2: 84 (37.0 bits)
```